3D

CONSTRUCTION
KIT USERS GROUP

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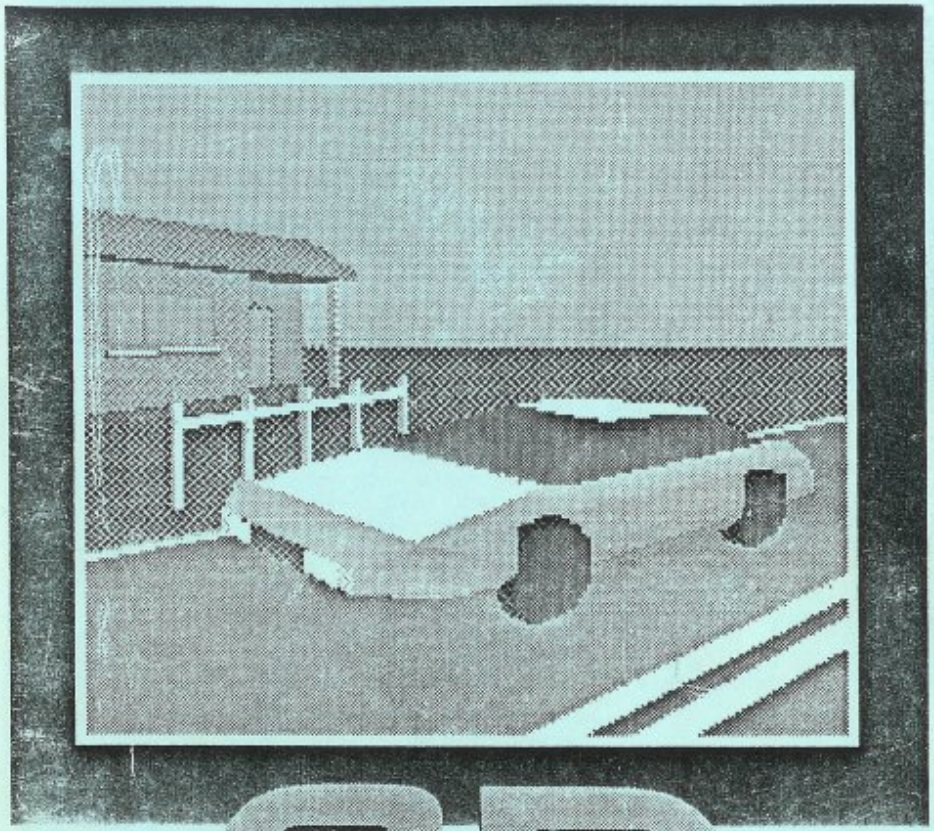

3D CONSTRUCTION KIT USERS GROUP

CONTENTS

EDITORIAL..... PAGE 4
LETTERS..... PAGE 5
VARIABLES..... PAGE 10
NEWS..... PAGE 13
PROBLEM PAGES..... PAGE 14
SAMPLE SOUND BANKS..... PAGE 18
HINTS AND TIPS..... PAGE 19
HALL OF FAME..... PAGE 20
AREA PLANNING..... PAGE 21
8-BIT ROUTINES..... PAGE 22
16-BIT ROUTINES..... PAGE 27

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CORRESPONDENCE. All correspondence addressed to the User Group will be assumed to be for publication unless otherwise stated. If you wish for a personal reply to a letter then please enclose a S.A.E. otherwise replies will be published in the pages of the newsletter.

CONTRIBUTIONS are always welcome from members. Hints, tips, routines or anything else that you think would be of interest to other members are most welcome. It is your club so we want to hear from you. If there is anything in particular that you would like to see covered in the newsletter then please let me know.

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HELPLINES

POSTAL HELP

If you wish to write in for help then please feel free to do so but please don't forget to enclose a stamped, self-addressed envelope and I will do my best to solve the problem.

TELEPHONE HELPLINE

0492 877305

If you need to telephone me for help then I will try to be available during the hours between 2pm and 7pm each weekday and will be delighted to hear from you and will, of course, do my very best to help with any problems you may have. As this telephone helpline is available only to members of the User Group, please do have your Registration Number handy and give your name when you call.

FACSIMILE

If anyone finds it more convenient to send a Fax then please feel free to do so. The telephone number is the same as that for the telephone helpline.

Please address all correspondence to:

Mandy Rodrigues
The 3D Construction Kit User Group
67 Lloyd Street, Llandudno, Gwynedd, LL30 2YP

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EDITORIAL

Welcome to issue 2 of the 3D Construction Kit User Group Newsletter.

Quite a lot has been happening since the last Newsletter. The 8 bit versions of the Kit are now on sale so we will be covering those machines too from now on. The language of the 16 bit and 8 bit versions are quite similar although the input lines are not flexible on the 8 bit versions, and so quite a few routines can be adapted from one to the other. I have had tons of letters so please forgive me if it is taking me a while to reply - I am catching up slowly but the initial "rush" after the launch of the Kit rather bowled me over. Don't worry though, I will respond to all queries as soon as I can. Many of the queries that I have received have been the same and so I have covered most of them in this issue. There is also very good news for 8 bit users who were a bit miserable over the fact that that version doesn't support animation. Thanks to our 8 bit wiz, George Dixon, routines to simulate animation are listed in the relevant routine section of this issue.

One or two of you were wondering if they had missed an issue - it's all my fault for not putting ISSUE 1 JUNE/JULY on the front of the first Newsletter (I just put JUNE) and it gave the impression that it was a monthly not a bi-monthly Newsletter. My apologies for that. This issue is the AUGUST/SEPTEMBER issue and the next issue will be in October (OCTOBER/NOVEMBER). This could change of course, depending on the amount of material sent in. If I am inundated with material from readers then I might have to change to a monthly Newsletter to fit it all in! Anyone joining the User Group from now on will, of course, receive the current newsletter but if anyone wishes to purchase back issues they are welcome to do so. The prices for each issue are the same as for the sample copies as listed on your registration card. But 8 bit members, please note that the first issue was aimed mainly at 16 bit versions as the 8 bit versions were not on sale at the time of printing.

Now that many of you have had a couple of months in which to become familiar with the Kit some first games must be nearing completion. If you have any that you would like me to see then do send them in. I have also had some kind offers of playtesters so if you want them checked then please do let me know. If you have any games that you would like to put into the Club PD library then please send them along for me to take a look at. I have had a few borders sent in for the PD but I need some more in order to compile a disk of them. So far I have only had borders for the Amiga so other machines will need to be covered too. I would like to eventually have PD disks covering borders, routines, objects, games, sound samples, puzzles and any other subject that you might like to suggest - for all machines - so that an extensive library can be built up for the use of all members.

Just one point, before I end, if you are writing for help from abroad please, please do write in English. I know the manual was translated into various languages but that was done by someone else and although I can tackle some "Latin" languages I cannot speak French or German and have no-one available to translate your requests. I have received quite a stack of letters that I cannot understand and it is a pity that I am unable to reply to them. Well, that's all from me for this issue. I'll speak to you all again in October. Bye for now,

Mandy

LETTERS

Dear Mandy

I have just purchased the 3D Construction Kit from the Computer Club for my Atari 520ST single sided drive. The disc received with the kit shows 0 Bytes on 0 Items? My drive does not accept this and shows no icons. Can you please tell me why? I would appreciate it as i don't feel like laying out this money for a blank disc! Thank you,

N.DOUGLAS, BEESTON, LEEDS.

ATARI ST

(The disc supplied with the package is for double sided drives only. If you send your disc to Incentive Software they will be happy to provide you with versions which are suitable for single sided disk drives.....Mandy)

Dear Mandy

I have been trying to install the Kit on hard disk. You state in the manual: Run the INSTALL program from the CLI and answer the on-screen prompts to install the Construction Kit on to a specified hard disk. This is hardly a friendly way of installing to HD for the first time user. I tried: run df0:utils/install (RETURN). This results in the following: "(CLI2) 1:SYS:>Please ensure original KIT disc is in drive DF0: NOTE - any non-existing subdirectories will be automatically created. Type PATH for INSTALL (e.g.DH0:UTILS/3DKIT)." What I got was "ERROR: You must specify a FULL drive/path specification." What does this mean? It seems to suggest that an error has occured! I decided to ignore the error and instead specify where I want INSTALL to place the KIT: General (RETURN). All I got was "Execute permission not set. Unable to load General: File not an object module". What on earth does this mean?

MR RICHARD HOWE, Isle of Wight

AMIGA

(The answer to your problems regarding the INSTALL program, the correct procedure for installing the 3D Construction Kit is to type at the CLI prompt: DF0:UTILS/INSTALL (RETURN). You will be presented with the following prompt: Please ensure original KIT disc is in drive DF0: NOTE - any non-existing subdirectories will be automatically created. Type PATH for INSTALL (e.g. DH0:UTILS/3DKIT). At this point you must type in the full path specification for the installation procedure. The program will then report on the progress of the installation. When completed, a fully installed version of the Construction Kit will be found in the specified directory.....Mandy)

Dear Mandy

When I have done a couple of objects and so on and saved it a few times I then suddenly discovered that I can't activate anything from the top menu bar! It is very strange because I can create and edit from the short-cut icons below, but I can't save it or do anything from the top menu bar at all. How can I solve this problem please? I would also like to ask if it would be possible through the User Group for members to swap their games between themselves as it would be fun to try other members games created with the Kit.

STEFFEN JUUL-SORENSEN, Denmark

AMIGA

(I am sorry you have been having problems, Steffen. This is a problem that has now been corrected. If you return your disc only to Domark Ltd (their address is on the back of the box) and ask them to replace

it with version V1.2 they will be happy to do so and I am sure you will experience no further difficulties. Plans are afoot to start a PD Library within the User Group and, depending on the response from members, an extensive collection of Borders, Routines, Games, Objects etc can be made available for interested members. This will, of course, depend entirely on members sending in material for the Library. I'll keep everyone informed on progress.....Mandy)

Dear Mandy

I cannot begin to tell you how helpful and interesting your first issue of the Newsletter was. I am excited to hear you may set up a PD Library full of Kit stuff, and I think it will be very successful. You mentioned in your editorial that you were looking for Kit Game Testers, and so I am offering my services. Having played all the FREESCAPE (tm) games since my days with a C64 and DRILLER, I think that I would be quite good, I would be glad to help you in any way possible.

SIMON BUTT, Cambs
AMIGA

(I am glad you found the Newsletter helpful, Simon. Thanks for your offer of help with the playtesting service. I will put your name on file and will put anyone who needs this service on an Amiga game in touch with you. Anyone else like to help in this way?.....Mandy)

Dear Mandy

The 3D Construction Kit is a wonderful piece of software. I have used a number of Virtual Reality systems but find that your software really holds its own. In a future update I would love to see the ability to grab and move objects in real time and also a modem link with other computers so that two people may share a world and have graphic representations of their bodies.

GORDON DURITY, Canada
ATARI ST

(I am glad you are impressed with the Kit and hope that you have a lot of enjoyment from working with it. Thank you for the useful suggestions. I will pass these on to the programmers for possible inclusion in future upgrades.....Mandy)

Dear Mandy

I am writing to congratulate you and Incentive on a fine and professionally written piece of software, which I hope to use totally in the very near future. I unfortunately have one apparent bug in my copy of the software. The problem occurs on the load and save part of the file menu. When I select save data, load data, save object, load object, load border (or any other option that requires disk accessing) the directory listing takes a good 30 seconds to appear on the screen. I have found that this slowness only occurs when I am using the mouse option from the start up menu. When I select keyboard only the problem disappears and I can then access the load and save features in a matter of seconds. I very much hope there is a simple answer to this problem and it can be resolved promptly.

SIMON CLARKE, East Sussex
PC

Dear Mandy

I have encountered a slight problem with the Kit and that is I have an Amstrad 2086 with a 32 Meg Hard Card and I also just bought a CONTRIVER MOUSE. When I installed this with the new mouse driver in it

took quite a while for the DIRECTORY to appear and it didn't work properly at all. I returned the mouse for a replacement but found the new one to be exactly the same. So I installed it once more and selected the AMSTRAD MOUSE and it worked really well and now the Kit does everything it should. I am very puzzled as to why the other mouse does not. I tried various mouse drivers but found the best was the Amstrad one. I was wondering if anyone else had the same problem and if so have you managed to solve it? If so, could you please notify me as to what to do.

ALEX WRIGHT, Redditch
PC

(The problems you have both encountered with the Mouse drivers on the PC versions of the Kit have now been fixed. If you return your disks to either Incentive Software or Domark (depending on which version you have - see note at the end of the letters section on where to send them) and ask them to replace them with version V1.2 you should have no further difficulties.....Mandy)

Dear Mandy

I'm not too artistic but I find a border made up of lines of various shades of grey gives an impressive border suitable for futuristic games. I am sending you three for the PD Library. If anyone happens to have Amiga Format magazine issues 19, 21, 18 and 17, they have Deluxe Paint tutorials that might help you to create more stunning borders.

A.J.BEVAN, Ashford, Middx
AMIGA

(The borders you sent for the PD Library were very impressive indeed and are appreciated very much. They will help to start the ball rolling. Any other readers like to send in contributions?.....Mandy)

Dear Mandy

I am having trouble loading my own borders into the Kit. The art program I am using is Deluxe Paint I, which is mentioned in the manual. I would be grateful if you could advise me on this matter.

PETER JOHNSON, Dyfed
AMIGA

(I have received a number of queries about this. I admit that I didn't explain this very well in the last Newsletter. If your art package supports NTSC then there should be no problem but many packages do not. In this case you should design your border with 320 x 200 pixels, Lo-Res, 16 colours but make sure you save it out as a BRUSH not a picture as the system quite often reverts to the default format and this causes the problem. Also make sure that you add .IFF to the end of the filename when you save your borders. You should then have no further difficulty.....Mandy)

Dear Mandy

I have recently purchased the 3D Construction Kit and have been trying to install it correctly. I am finding that it will not run when copied to a floppy, nor will it properly install to hard drive through the install program. One of the three files that the manual says is necessary to run in the same directory as the 3dkit.prg does not exist at all on the floppy, and the install program is install.ttp not install.tos, as stated in the manual. When I run the install.ttp program it still does not work properly. I have run the program from the original floppy, but I cannot copy it with any copier I have. I really haven't gotten the chance to even load something in, hopefully,

these problems are minor. Do you know if there are known bugs with the program, or if faulty copies went out? If Domark has a fix, could you please notify me of it? One thing came to mind was the fact that I am in Canada, and there may be differences machine-wise. But that does not explain the filenames, and given that Domark has a "Rest of World" price set for the Newsletter, they probably expect that the program will be used in "Rest of the World". Hopefully all of this will work out. Thanks in advance.

HOWARD SAUNDERS, Labrador, Canada

ATARI ST

(The problem re installing to hard disk on the Atari ST versions of the Kit has now been fixed with version V1.2. If you return your disk to Domark Ltd for replacement you should have no further difficulty. The initial batch of disks sent out by Domark were given copy protection. This was an error but please don't worry - if anyone does have an "accident" with their original disk then Domark Ltd will be happy to replace it for you.....Mandy)

Dear Mandy

I think the Construction Kit is brilliant. It is probably the closest I'll ever get to designing or creating my own game. I spent all weekend writing down all the objects and attributes, conditions, area conditions and general conditions and animations for area 001 of the Kitgame in an attempt to work out what variables were attached to what objects and how they worked etc. I was reduced to a jibbering wreck by Sunday evening! On Monday morning I awoke to discover the postman had delivered the Newsletter, which is excellent. Plenty of ideas, hints and tips and help with Variables. I am sure, though, that other users, like myself would like to see this section on Variables carry on. I look forward to the next newsletter!

GLYNNE WATSON, Morley

ATARI ST

Dear Mandy

Thanks for the Newsletter - I look forward to seeing some more excellent stuff - well done. I have a problem with the Kit. Though I haven't spent enough time on it nor experimented with samples all the manual mentions is that samples have to be saved out in .IFF RAN 8 bit format. As the sample rate info is ignored, what rate should I sample the sounds so they playback the same (ie. what playback rate does the 3DKit use?). I look forward to the setting up of your PD Library and would like to put myself forward as a games tester/evaluator. I work for a software house developing games on the NES so I think I know what makes a good game. Have you thought about Sample Bank disks as well as games, environments and borders in your PD Library?

ROSS HARRIS, Leeds

AMIGA

(Great idea about the Samples for the PD Library, Ross. I will certainly take that on board but as I mentioned previously, it all depends on the response from other members. I'll also put you on file as a playtester. There will be more info on making your own Sound Sample Bank in this issue. The Amiga versions of the Kit have a playback rate of 10 KHz and the Atari ST versions have a playback rate of 8.3 KHz.....Mandy)

Dear Mandy

Many thanks for the interesting and very informative first issue of the Club Newsletter. I have learned a great deal from it. I have some information which may be of benefit to your users and may be of use also to aid the distribution of the PD borders etc. Firstly, I

discovered a bug in the 3D Kit which affects Atari STFM users who have version 1.2 of the operating system (1.2 is quite old, about 1986/87). The bug is in the Atari operating system so it is not Incentive's fault. The problem lies in the SAVE DATA and LOAD DATA options, for example if you create a CUBE and then remove the master disk, insert a blank disk and then use SAVE DATA, once this is done re-insert the master disk, and select LOAD DATA and try and load the KITGAME from the \DATA directory, you may find that the directory is empty. This is caused by a system bug which does not recognise the fact you have changed discs. I reported this to Paul Gregory at Incentive and he has confirmed this is an ATARI operating system bug in V1.2. I returned my master disc and he has sent me back a new bug free copy which seems to be version V1.2 of the 3DCK. Also I am the System Operator (SYSOP) of a Bulletin Board in Southeast Kent, although the Computer Bulletin Board does not run 24 hours, I am online after 8pm to 6.45am EVERY DAY so I thought I could set up a CLOSED file section for Borders and such on my system for users to download. I run the Bulletin Board on a CPM based machine but have over 10 Mb of Atari STFM software and also have some PC and Amiga files available, and I am also willing to set up a message area on my system for messages etc on the topic - do you think this is a good idea? The telephone is 0233 620228.

CHRIS KING, Ashford, Kent

(I think it is an excellent idea, Chris. If any members are interested and are on-line then I hope they get in touch.....Mandy)

Dear Mandy

First I must congratulate the programming team of Incentive Software. I think they have designed a very good tool for programming 3D objects. Normally if you want to construct 3D objects you have to buy very expensive software and it is also very difficult to understand and to work with those programs. But with the 3D Construction Kit it makes a lot of fun to build my own virtual reality. I also agree with the suggestion of Robert Davis (Catesham, Surrey - Issue 1) to start a PD Library. It is a very good idea because there are a lot of users who build fantastic worlds or objects or draw fantastic borders and nobody except their family or friends ever get to see them otherwise. I do have a question. Is it possible for Incentive Software to programm a tool for the 3D Kit to use more than 640 KB on IBM computers? I am very sad about this because I've 4Mb on board and I can't use them. I can only create 60 objects in an area but think it must be possible to build more.

CHRISTIAN ROSENHAUER, Germany

PC

(At present users are restricted to 60 objects in any one area but I will pass on your suggestion to the programmers and wait to see what they come up with. They are hard at work on other versions of the Kit at present (news will be published here when it comes in). It would be nice if the extra memory were utilised by the Kit.....Mandy)

Please note that, although version V1.2 of the Kit is available, it does not contain any extra features from V1.1 or V1.0. If, however, any reader has experienced the problems mentioned in a couple of the letters and feels the need to return disks for replacement please ensure that they are sent to the correct address. If your package was from the Computer Club then it is Incentive Software, if the Domark version (in the black box) then please address to Domark - the addresses are on the back of the box. Please feel free to contact me for advice on this first though, as I'll be happy to help.....Mandy

MORE LETTERS IN THE NEXT NEWSLETTER

VARIABLES

Since the previous newsletter I have had lots of requests for more information on variables. These requests range from asking for more examples as in the last article to asking for an explanation for those completely new to programming of exactly what they are and what they do.

A Variable is a symbol that stands for a value. In general programming on a computer they are more complicated than those used within the FCL. Sometimes the value of a variable is unknown before you RUN a program and one of the purposes of a program could be to find one or more values for a variable. The most important thing is understanding how variables work, because variables allow you to do complex tasks with your computer. They also let you write routines that are very re-usable.

Imagine that your computer contains a bunch of little slots, like a bank of mail boxes. When you write a program, you can use some of these slots to hold values. All you would do in general programming is to give a name to the slots you need, and during the program you can put values into each slot by using the slots name. In general programming a variable can be of three types: Integar which contains whole numbers, Text string which are characters and Floating Point which are real (decimal) or whole numbers.

Within the FCL variables are much simpler and easier to use than in general programming. They are used to hold numerical values only. Once a variable has been set to hold a selected number it can then be added to, subtracted from etc and this is what makes them so powerful.

In a very simplistic form we can use a variable by setting it to hold a value of, say, 10 and during the program we can add more to that variable when certain actions are performed and then tell the program that when that variable reaches a certain figure, say 100, to perform a specific task, e.g. We could set variable number 50 to hold a value of 10. We can have 9 gold bars scattered throughout our game. Each time one of the gold bars is discovered by the player we will tell the program to increase the value of variable 50 by 10. In this way, once all the gold bars have been discovered, variable 50 should hold a value of 100. We will have previously told the program that once variable 50 holds a value of 100 we want a message to be printed on the screen such as "Well done! You have now collected all the treasures!".

The real benefit of variables is that we can have many variables working for us on different tasks such as holding the score, holding our strength etc. Throughout the game they can be working away adding and subtracting as various tasks are performed until they reach the figure we have previously selected for them to perform a specific task.

They can also be used to perform more complicated tasks for us where, for example we can use a number of different variables to perform the same task. We could have one variable counting up to a certain value and at that point we could have that variable acting as a trigger to insert another value into a different variable.

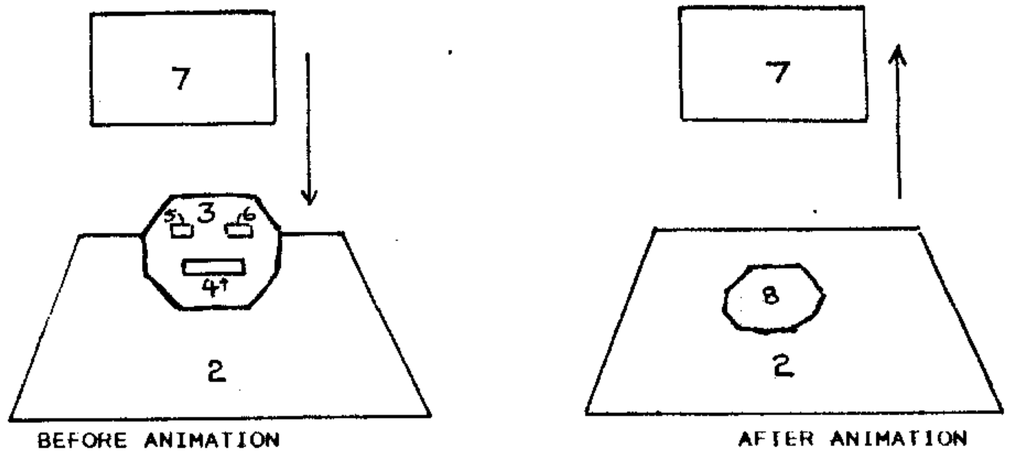
Once you have some understanding of what they can do and you have variables working for you within your environments you will wonder how on earth you managed to program anything at all without them.

When you wish to use a variable in your game you should set the selected variable in GENERAL CONDITION 1 to hold the value you wish. It is now ready for you to call upon whenever you wish from different parts of your environment.

As many of you seem to be having difficulty working out how to create and reduce TIME and ENERGY BARS I will "kill two birds with one stone" by showing exactly how this can be done and, as variables are used for this, give examples on variable uses at the same time.

The following routine was programmed by Bobby Rodrigues (my son) on the Amiga and shows how to have a TIME/ENERGY bar reducing until you are transported to another area which contains the ENGAME routine.

First of all we will create Area 2 which is where we will hold our endgame sequence. What Bobby did was to create an animation where a smiling head was sitting on a mat. A large cube descends and squashes it flat and the message OUCH is printed on the screen. What you should do first is to create this scene as follows:



Create a flattened green cube (2). The head is a hexagon (3) with a mouth (rectangle) (4) and two eyes (rectangles) (5 and 6). The crusher which is suspended in mid-air over the head is cube (7) and the squashed head is pentagon (8). Make the latter invisible via the object attributes. Colour the sky and ground black.

We are going to use variable number 31 so we must set that in GENERAL CONDITION 1 as follows:

```
SETVAR (V31,1)
```

Now create GENERAL CONDITION 2 and edit it to insert the following:

```
IF VAR=? (V31,280)
THEN GOTO (1,2)
ENDIF
```

We are going to use the "ground" cube (1) in Area 1 as our target for

shooting so go to area 1 and insert the following condition for cube (1):

```
,IF SHOT?
 THEN ADDVAR (1,V31)
 UPDATET (1)
 IF VAR>? (V31,200)
 THEN GOTO (1,2)
 ENDIF
```

What we are saying here is: If the ground cube is shot then add 1 to the value of variable 31 and update the instrument (which we will create in a moment) accordingly. If the value of variable 31 becomes greater than 200 then transport the player to entrance 1 in area 2.

Now we will go to Area 2, where we have created our endgame scene and animate it. Make sure that cube (7) is set to MOVEABLE via the ATTRIBUTES in the Object Menu and create Animator 1 and edit it as follows:

```
INCLUDE (7)
START
LOOP (20)
MOVE (0,-30,0)
AGAIN
INVIS (3)
INVIS (4)
INVIS (5)
INVIS (6)
VIS (8)
LOOP (20)
MOVE (0,30,0)
AGAIN
PRINT ("  OUCH!  ",2)
```

Now create AREA CONDITION 1 in Area 2 and edit it as follows:

```
STARTANIM (1)
```

This is so that the animation we are creating will take effect as soon as the player is transported to area 2.

Now, via the GENERAL menu we are going to create two INSTRUMENTS and edit them as follows:

```
INSTRUMENT (1)
Type HORIZONTAL
X POS 038  LENGTH 278
Y POS 005  HEIGHT 004
VARIABLE = 031
LEFT/BOTTOM 00000000
RIGHT/TOP   00000200
FG COLOUR 00
BG COLOUR 07
```

```
INSTRUMENT (2)
Type TEXT WINDOW
X POS 110  LENGTH 080
Y POS 164  HEIGHT 008
VARIABLE = 030
LEFT/BOTTOM 00000000
RIGHT/TOP   00001000
FG COLOUR 01
BG COLOUR 03
```

Right, that's all the programming we need for the moment. RESET the environment and enter TEST MODE via the TEST ICON. You should see the ground and sky as normal but with a yellow energy bar across the top of the screen. Now shoot the "ground" and as you do so you will see that the energy bar is reducing towards the right and being replaced

by a black bar.

As soon as the energy bar has been completely reduced you will be transported to our ENDGAME sequence where you will see the smiling head being squashed to a pulp and the text message "OUCH!" will be seen on screen.

If you want to then use the ENDGAME command this can be added to the ANIMATOR condition just after the PRINT COMMAND as follows:

```
PRINT ("  OUCH!  ",2)
DELAY (500)
ENDGAME
```

This will pause for a short time with the message on screen before the environment is RESET back to Area 1 once more.

This is just an example of how to create and use Time/Energy bars and to transport the player to an Endgame sequence. I am sure that you will be able to create really complex and exciting Endgame routines. When you do, I would love to hear from you on how you did it and the routines that you used, for publication in the Newsletter.

****

NEWS

3D CONSTRUCTION KIT CIX CONFERENCE

A conference for users of the 3D CONSTRUCTION KIT has been opened on CIX. The conference is closed and as such only REGISTERED users of the KIT will be able to access it. Anybody wishing to be registered as a participant on the conference should simply MAIL the me under the username DIMENSION with your registration number and at the earliest convenience I will contact MANDY RODRIGUES and confirm your registration. If all is well you should receive a reply from me in your MAIL basket within a few days.

What is the conference for?

Primarily the conference will be used by people wishing to contact 3D CONSTRUCTION KIT users to exchange ideas, environments, FCL programs etc. Also as the conference is regularly moderated by us at INCENTIVE any problems or queries could be answered by us.

The conference has a filelist so if you have an interesting environment or object (or anything relating to the 3D CONSTRUCTION KIT) you wish to share, simply upload it to the conference, MAIL me with details of the file and I will include it in the filelist.

We hope this conference will be a successful exchange forum for users of the KIT but that is really up to the users so we hope to hear from you soon.

INCENTIVE SOFTWARE

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PROBLEM PAGES

I am very impressed with the program but have a small problem. Maybe I am thick but I don't understand what PROCEDURE CONDITIONS are for, can you please explain? I have tried to study the ones in the Kitgame to see if I can figure out what they do but I am not making any progress there.

MARTIN WESTON, Cambridge - AMSTRAD CPC6128

PROCEDURE CONDITIONS are like SUBROUTINES and the command CALL is much the same as the basic command GOSUB. 16 Bit versions do not have PROC CONDITIONS and, as they do save a lot of time as they can be called up in the same way as basic subroutines, 8-bitters do have an advantage here. The PROCEDURE CONDITIONS in the 8-bit Kitgame are as follows:

1. Move Hammer along rail in Area 9.
2. Move Hammer along rail - part two.
3. Debug Gun.
4. Lift player on Platform in Area 11.
5. Limit energy to 100 if > 100.
6. Add 50 to the score.
7. Area 4. Check for the Exit Pass - Result if not carried.
8. Area 4. Check for Exit Pass - Result if carried.
9. Gold Found message.
10. Teleport handling - Goto 12 2 / Goto 1 5.
11. Clear Text Window.

I hope that this will help you to a better understanding of how these conditions work. If you need further help on this then please let me know.....Mandy

==========

Please could you please tell me exactly what ANMCNT means? This is in the animations within the Kitgame but I can find no reference to this in the manual at all. What does it do?

PATRICK GUIGNET, France - AMIGA

During creation of the program and the Kitgame various names were used for commands and subsequently changed for others until the final version was complete. Unfortunately the command you found - ANMCNT - is one of those obsolete condition names. It was left within the Kitgame but serves no useful purpose at all and I apologise if this has confused anyone.....Mandy

==========

I cannot find my 3D Construction Kit Release Number. I received the Kit via the Computer Club. Please could you tell me where it is?

S. ARCHER, Poole, Dorset.

The Release Number can be found under ABOUT within the top FILE MENU or by clicking on the "I" (Incentive) icon found at the bottom left of the Edit Screen.....Mandy

==========

Please could you help me solve this problem? I have created a cube (cuboid 2) set attribute to moveable and then made conditions for the cube (cuboid 2) as follows:

```
IF SHOT?
THEN IFVAR>? (V100,0)
THEN STARTANIM (1)
ELSE STARTANIM (2)
ENDIF
ENDIF
```

The animators are as follows:


```
ANIMATOR 1
INCLUDE (2)
START
SETVAR (0,V100
LOOP (20)
MOVE (4,0,0)
AGAIN
STOPANIM (1)
RESTART
```

```
ANIMATOR 2
INCLUDE (2)
START
SETVAR (1,V100)
LOOP (20)
MOVE (-4,0,0)
AGAIN
STOPANIM (2)
RESTART
```

The object is to shoot the cube and it moves to the right and stops and when it's shot again it moves left and stops. This will be used to create the effect of a sliding door. Could you please help with the syntax to create this illusion as it just isn't quite right?

C. J. HELSBY, Warrington - AMIGA

The reason this routine doesn't work is because it is not possible to have two animators on the same object. The use of the variables are also unnecessary here and should really be saved for more complicated routines. A very simple way to achieve the effect you want is as follows:

CONDITION FOR CUBE (2)

```
IF SHOT?
THEN STARTANIM (1)
ENDIF
```

EDIT ANIMATOR 1 AS FOLLOWS:

```
INCLUDE (2)
START
LOOP (20)
MOVE (4,0,0)
AGAIN
STOPANIM (1)
LOOP (20)
MOVE (-4,0,0)
AGAIN
STOPANIM (1)
RESTART
```

This should do exactly what you want. It works because when the cube is shot a second time it starts reading the condition from the first STOPANIM command and continues until it reaches the second STOPANIM command, then it goes back to the start once more. You can keep going for ever in this way.....Mandy

==========

Please could you tell me how to write a routine to climb stairs or steps?

ROGER GREEN, Blyth

You shouldn't really need any routine to climb steps, Roger. Providing your steps are not higher than the maximum climb ability you should just be able to "bump" up them. Load in the Kitgame and turn to face the steps leading to the roof of the Kiosk, now walk towards them and keep walking until you find yourself climbing them and you will see what I mean.....Mandy

==========

I find the Kit very user-friendly but I have a problem loading the 3D Kitgame. I try to load it according to the manual, select the Border Directory, click on the KG Border and the program loads. When I go to TEST the border screen flashes on and then off immediately and the test screen appears again. I am beginning to think that my machine is

at fault, can you help me?

BOB PORRITT, Middlesbrough - AMIGA

When a border is loaded into the Kit you will not be able to see it within TEST screen unless you define the size of the window via SET VIEW WINDOW from the GENERAL CONDITION MENU. Once that is selected you will be presented with the TEST window and the border and a dotted line representing a box which you should drag with the mouse until you have defined the window size you want within the border. Once this is done you will be able to see the border and the environment without any difficulty at all. Another common cause of this is failure to load the KITGAME datafile at the same time as the border, if both are loaded there is no difficulty in this way at all.....Mandy

==========

I have a question. How is it possible to enlarge an area beyond the sixe that it is when first created? How it is possible to create an area as large as the Beachy Head area of the Shuttle Area in the Kitgame? My guess is that it is something to do with the scale number but no amound of fooling around with this will do the trick, in fact, the scale figure is barely mentioned in the manual and I have no idea what its function is. Please help!

ALLAN HERN, Bournemouth - AMIGA

The way to create the illusion of a very large area - and it IS an illusion - is to use the globals to enclose the area you want and colour them as you would the sky so they are not visible. Now select HORIZON OFF and as you wander around you will see exactly what the effect is! Do make sure that you completely enclose the area with walls, floor and ceiling from the Globals or you will get some very disturbing effects - in other words, never use Horizon Off in an open area. If you wonder what I mean then just load in the Kit, create one cube, select Horizon Off and start to turn yourself around - horrible isn't it? The SCALE is another matter altogether. This is what we use to create what we fondly refer to as the Alice In Wonderland Effect. In other words, you can change YOUR size within an area. Very useful if you wish to create a garden shed or other small area. Use the globals, rescale the area and by only taking a couple of steps forward you should find your nose banging against the far wall of the area! Experiment a little until you create the effect you want.....Mandy

==========

Please explain precisely how to see the demonstration 3D Kit Game on the screen. The handbook says "Select TEST from the General Menu". I cannot find the word TEST on any menu. Please help me to be able to see this demonstration program.

DAVID TURNER, Guildford - COMMODORE 64

If you have the disc version of the Kit and you scan the disc you should see the program KIT-DATA9 and KITSCR listed. However, to load the Kitgame you should select LOAD and when the item selector comes up you should type in 9 and the Kitgame should load in.....Mandy

==========

I have encountered some things that are not in accordance with the manual. For instance, on loading DATA (no DATAFILE visible) I get the file selector of Figure 2, which does not list KITGAME. It is also disturbing to find that on selecting various files a message comes up "the requested file is not of the correct format". My reaction to that is that your firm put them into the format that they have! I would welcome some help on these points.

C.L.BORE, Surrey

When you are presented with the file selector of Figure 2 you should then select DATA and the datafile menu selector should appear which shows the KITGAME. In a similar way when you wish to select a border you should select BORDERS to bring up the relevant directory. Always remember that to return to the PARENT directory you should click on DF0: (or DF1: if data disc is in a second drive) for Amiga or click on Drive A: or B on Atari ST. If you originally selected LOAD DATA and then tried to load in say a border you would get the message about not being of the correct format.....Mandy

==========

Please could you tell me how I can format a disc for saving my datafiles on? The manual says that they need to be formatted in a special way although compiled programs can be saved to discs that have been formatted in the normal way. I don't know how to do the special format required, please help.

SHARON WILLIAMS, Rhuddlan - SPECTRUM PLUS 3

If you have the disc version of the Kit you will find a program called FREESCAPE DATA DISK FORMATTER on side one which will format your discs for you. If you have the tape version then, for obvious reasons that program isn't included and you will have to save your datafiles to tape only.....Mandy

==========

I have just bought the program and I am having difficulty understanding how the ENTRANCES work. I created an entrance but couldn't see it anywhere on the screen. Can you please tell me where I am going wrong?

DARREN SEGAR, Ipswich - ATARI ST

The entrance you expected to see, I think, are not the kind of entrances that are created with the Kit. When you create an ENTRANCE it is invisible. It is a point where you wish to place the player (or yourself) within a particular area. For instance, if you build a wall with a door in the centre which you wish the player to pass through you should position yourself on the other side of the door, preferably with your back to it - easily done by walking up to the door and performing a u-turn - and select CREATE ENTRANCE. If you then select GOTO ENTRANCE you should see that the new entrance is shown on the list as ENTRANCE 002. Now go to the other side of the door and create a condition for the doorway such as IF COLLIDED? THEN GOTO (2,1). Now when the player collides with the doorway he/she should be instantly transported to the other side with their back to the door just as if they had walked through it.....Mandy

==========

I am having problems trying to get the program to understand the conditions. I have entered some of the Animation routines in issue 1 of the User Group Newsletter but cannot get it to accept any of them.

AMANDA CHARNLEY, Exeter - AMSTRAD CPC464

I am sorry, Amanda, but the reason the routines don't work on your machine is that Animation isn't available on 8-bit computers, only on 16-bit versions. However, all is not lost! See the section on 8-bit routines by George Dixon in this issue to see how simulated animation can be achieved on an 8-bit machine!.....Mandy

==========

Please could you print more help on Variables as I still don't fully understand what they are and how they work.

PETER SORENSSEN, Sweden - PC

Your wish is my command. Lots of requests have been received for more on the subject of variables. I'll do my best.....Mandy

HAVE YOU A PROBLEM? LET ME KNOW - IT MAY ALSO HELP SOMEONE ELSE!

SAMPLE SOUND BANKS

I have had quite a few letters regarding making members own sample sound banks. The problems seem to be mainly on the Amiga and the Atari ST versions so we will deal with them here. My thanks to PAUL GREGORY (one of the programmers) for his help with this article.

AMIGA

Copy all the samples you wish your bank to contain on a separate formatted disc and then copy the JOIN/MAKESAMPLEBANK program to the same disc.

Boot the Workbench disc and start the CLI as previously explained. Put the new disc into drive DF0: and type at the CLI prompt:

DF0:JOIN DF0:'sample1name'+DF0:'sample2name'+DF0:'samplexname' DF0: 'Bankname'

For example if you have the samples, BANG, CRASH and SIREN on the disc and wish to create a sample bank called NEW.BNK the command line would look like this:

DF0:JOIN DF0:BANG+DF0:CRASH+DF0:SIREN DF0:NEW.BNK.

This will create a new sample bank on the disc, to use this bank in the KIT simply start the KIT from the CLI with the following command line:

"DF0:3DKIT -sNEW.BNK".

ATARI ST

Copy all the samples you wish your bank to contain to a new formatted disc, then copy the JOIN.TTP file to the same disc. With the new disc in the drive, double click on the JOIN.TTP icon. You will be presented with a dialogue box asking for parameters, in the text line of this dialogue box type in the command line in the following format:

A:'sample1name'+A:'sample2name'+A:'samplexname' A:'BankName'.

For example, if you have the samples BANG, CRASH and SIREN on the disc to create a sample bank called NEW.BNK you would type the following command line:

A:BANG+A:CRASH+A:SIREN A:NEW.BNK.

This will create a new sample bank on the same disc. To use this from within the KIT you should copy it to the BACKUP version of the KIT that you use and rename 3DKIT.PRG to 3DKIT.TTP. Then when you start the KIT from the desktop you will be presented with dialogue box similar to before. Type in the command line "-sNEW.BNK" and your new sample bank will be loaded instead of the default one.

I hope that this will clear up any confusion over using this part of the Kit. If anyone would like me to cover any particular aspect of the Kit in a future newsletter then please let me know - it is YOUR club so please do let me know what you want.....Mandy

****

HINTS AND TIPS

BORDERS - ATARI ST
By JURGEN THUROW, Germany

To overcome the problem with the split screen border and the colours, as mentioned in the last Newsletter, If you create your borders with Neo, you will have to adapt the colour table of the Area Colours, if you use full screen borders (not split). Therefore you should double the values of the colours you need:

E.g. If the colours on Neo are 7 7 7 the 3D Kit would be 15 15 15, or if Neo is 3 5 1 3D KIT would be 6 10 2 to get the same colours.

Thanks to Jurgen for this tip that will help Atari ST users to be able to create full screen borders without them being spoiled when moving around the different areas.

==========

TO ACCESS THE READ-ME FILE

AMIGA

Quite a few people have had difficulty accessing the README file on the Amiga versions of the Kit. This is a problem on single drive machines, as are all processes involving the CLI. To read the file you must boot to the Workbench disc and start the CLI by opening the Workbench disc's icon and clicking on the CLI or SHELL icon.

Then at the prompt you should type:

"TYPE 3D_KIT:README.KIT"

The machine will then prompt for the 3D KIT disc. Insert it in drive DF0: when asked and the file will be printed to the screen.

==========

TIP BY MARCUS JONES

If you create a staircase which you want to lead the player into another area (you obviously cannot build the staircase right up into the roof and you don't want the player to walk right up to the very top before they encounter the entrance), you should enter a condition for one of the steps - say about half way up - as follows:

16-BIT:

```
IF COLLIDED?
THEN GOTO (e,a)
ENDIF
```

8-BIT:

```
IFHIT    o
THEN
GOTO     e   a
END
```

If you are creating a "landing" in a building between floors you will also want the player to be able to descend the stairs to the floor below. Drawing these stairs is, for obvious reasons, quite difficult unless you have a raised floor in your area. One way round this could be to make what appears to be a trapdoor in the floor and enter conditions for it (as above) so when the player collides with it they are transported to the required entrance and area.

Another way this could be done - especially if you don't want the player to get too close to the trapdoor in case the illusion is spoilt upon closer inspection - would be to have a cube placed in front of the trapdoor. Close enough so that the intention of descending the stairs is obvious. Paint that invisible and enter the conditions for the invisible cube instead of the trapdoor.

==========

ILLUSIONS

BY PHILIP DENYER

The 3D Kit lends itself to the creation of illusions very well indeed. If you want to create a secret entrance such as those created in the film Labyrinth, it can easily be done by colouring the wall of the room that the entrance leads into exactly the same colour as the outer wall where your entrance lies. In this way the gap in the wall will not be seen until the player is right up against the entrance.

****

HALL OF FAME

Sincere thanks to the following members who kindly sent in contributions for the User Group Newsletter during the past two months:

GEORGE DIXON. BOBBY RODRIGUES. MARK SLOAN. DAVID SAMBROOK. A.J.BEVAN. PHILIP DENYER. MARCUS JONES. JURGEN THUROW. PAUL GREGORY. PETER KILNER. STUART RIVERS. ALLAN MARTIN. ANDREW NEILSON and KURT SORENSSEN.

All members are invited to send in contributions for the Newsletters. Everything is welcome from a full blown article to just the odd hint or tip. The more material that is received for the Newsletters the bigger they will be!

If any member would like any specific topic to be covered in the Newsletter then do please write in and let me know and I will do my best to include it as soon as possible.

Letters are also welcome on all topics relevant to the 3D Kit - even grumbles if you have any. I would love to hear from you all so do write in.

The next Newsletter will be published in October so you have plenty of time to work on some useful routines that you think might be useful for other members. Items for the PD Library are also needed to get things started.

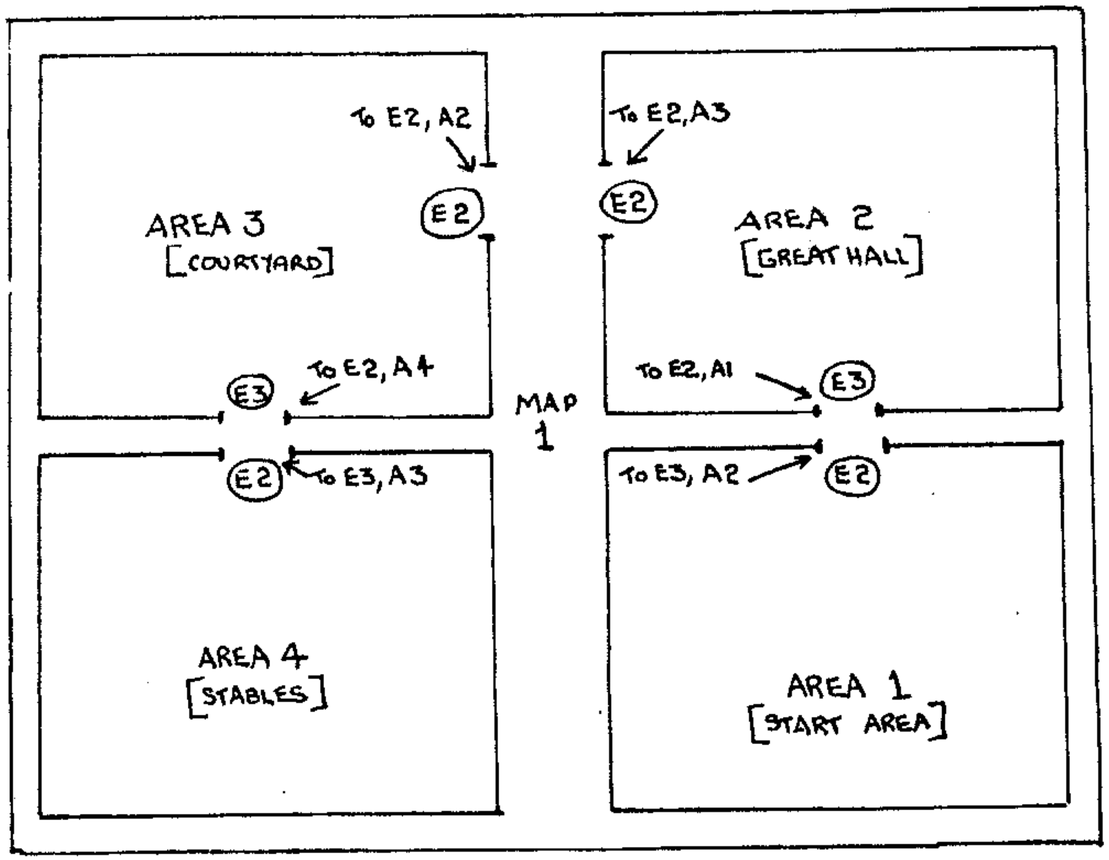
****

PLANNING AREAS AND ENTRANCES

Before any real work is started on your environments it is much easier, in the long run, to make a plan of the areas you wish to include and the connections and entrances which you will use. One of the most frustrating things to happen whilst working on one area is to start making the conditions for transporting the player to another area and forgetting which area and entrance you wish them to be transported to. It usually means having to go and find the area and check the entrances before returning to the area once more to enter the required conditions.

I usually make sure that I position myself at the correct viewpoint and in the correct position, say with my back against a doorway, creating an entrance and immediately marking it down on my plan. In this way I never forget what the logical connections should be and I ensure that when passing through a doorway I end up with my back to the connecting doorway in another area and likewise for returning once more. It looks rather strange to the player to pass through a doorway and suddenly find themselves right in the middle of a wide open area with the doorway seemingly miles away.

To illustrate what I mean, here is a sample of kind of plan I make before getting to work on a new environment:



8-BIT ROUTINES

BY GEORGE DIXON

I have just received my first Newsletter. What a good read, congratulations! Although you state that it was predominately 16-bit orientated, I found that it certainly gave me food for thought to develop (hopefully) routines that could emulate 16-bit features. I must add that my four teenage children and I are very excited at your ideas for the future of the Club and the Public Domain Library.

Now down to the results of my efforts slaving over a hot keyboard - we ancient 8-bit owners have to suffer the heat from Steam Driven computers.

ROUTINE TO ACTIVATE SENSOR FROM TRIGGER PAD

Within the manual it is stated that SENSORS will shoot at the player when he is in range of the sensor, even if objects are in the way. It is most unfair on poor unsuspecting adventurers to be shot at through walls. The manual hints at the method to overcome this problem, but, is not entirely detailed. Here is my attempt to correct this.

1. CREATE SENSOR.
2. POSITION SENSOR IN ENVIRONMENT.
3. SELECT ATTRIBUTES FOR SENSOR.

At this point may I state that the manual is not entirely clear on how to adjust the range and frequency of a sensor. Within the DIALOGUE box for the sensor. Attributes, the SIZE statement really means RANGE (0-255); SPEED/FREQUENCY; SIZE (cannot be varied). A value of 0 for SPEED means that the sensor will detect but not shoot. Now back to the environment:

4. MOVE THE CURSOR TO 1ST PARAMETER OF SIZE (RANGE) AND CLICK-ON. YOU CAN NOW ENTER YOUR OWN DETECTION RANGE (SAY 10).
5. MOVE THE CURSOR TO 2ND PARAMETER OF SIZE (SPEED) AND CLICK-ON. YOU CAN NOW ENTER YOUR OWN SENSOR FIRING FREQUENCY (SAY 10 WHICH EQUATES TO 1 SECOND).
6. MOVE CURSOR TO "OK" AND CLICK-ON TO EXIT ATTRIBUTES.
7. CREATE A RECTANGLE AND FLIP IT TO ENABLE IT TO BE POSITIONED ON THE GROUND NEAR THE SENSOR.
8. GO BACK TO SELECTION OF THE SENSOR ATTRIBUTES AND POSITION CURSOR OVER INITIAL THEN CURRENT STATES. CLICK-ON EACH IN TURN TO MAKE INVISIBLE CONDITION.
9. CREATE THE FOLLOWING LOCAL CONDITIONS:

```
IFHIT      3    (Rectangle)
THEN
VIS        2    (Sensor)
END
```

To make this "action area" more localised, ie just trigger pad activated, we need to create a further SENSOR then make the speed of SENSOR 1 0 so that it detects but does not shoot. Set SENSOR 2 to your RANGE and SPEED parameters. Now your two SENSOR ATTRIBUTE boxes should appear as follows:


```
SENSOR 1                    SENSOR 2
POS:  XXX XXX XXX           POS:  XXX XXX XXX
SIZE: 010,000,001           SIZE: 010,010,001
CURRENT: VISIBLE            CURRENT: INVISIBLE
INITIAL: VISIBLE            INITIAL: INVISIBLE
```

Adjust accordingly. Edit your LOCAL CONDITION as follows:

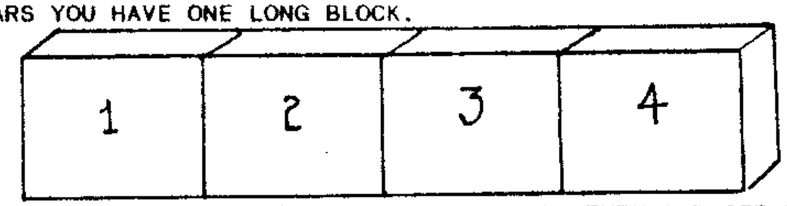
```
IFHIT      3    (Rectangle)
AND
IFSENSED   2  1 (Sensor 1)
THEN
VIS        4    (Sensor 2)
END
```

NOTE: The FCL editor requires that object number and area parameters be included with the IFSENSED condition. This is not mentioned in the manual!

ANIMATION ROUTINE

This is an attempt to emulate the Animation feature available on the 16-bit versions. It is a bit crude in that it is not as smooth as a 16-bit, but, I am sure someone out there can improve on it.

1. CREATE/COPY FOUR IDENTICAL CUBES.
2. POSITION ALL CUBES ON THE GROUND BUTTING UP TO ONE-ANOTHER SO THAT IT APPEARS YOU HAVE ONE LONG BLOCK.



3. SELECT ATTRIBUTES FOR CUBES 2, 3, AND 4 IN TURN AND SET THE CURRENT AND INITIAL STATE OF EACH TO INVISIBLE.
4. CREATE THE FOLLOWING LOCAL CONDITION:

```
TOGVIS     2  (Cube 1)
TOGVIS     3  (Cube 2)
REDRAW
TOGVIS     3
TOGVIS     4  (Cube 3)
REDRAW
TOGVIS     4
TOGVIS     5  (Cube 4)
REDRAW
TOGVIS     5
TOGVIS     4
REDRAW
TOGVIS     4
TOGVIS     3
REDRAW
TOGVIS     3
TOGVIS     2
REDRAW
END
```

You should see what appears to be a cube moving from side to side in front of you. It is possible to break into this action by holding a direction button/joystick direction on to move the cursor to the MENU SELECTOR at the top of the screen.

We can set this animation condition to a particular frequency activated by a Sensor:

1. CREATE A SENSOR AND POSITION IT NEAR TO YOUR CUBES.
2. SELECT ATTRIBUTES FOR SENSOR AND SET THE RANGE TO SAY 10. SET THE FREQUENCY/SPEED TO 0.
3. EDIT YOUR LOCAL CONDITION TO ADD THE FOLLOWING STATEMENTS IN FRONT OF THE EXISTING TEXT:

```
TIMER      150     (= 3 seconds)
IFSENSED   6     1 (sensor=object 6)
AND
IFTIMER
THEN
TOGVIS     2
ETC...
```

Now as you move towards that innocent looking cube, be prepared for a surprise!

USING TIMER TO SET UP A MASTER "CLOCK" RATE

The idea behind this routine is to provide a CLOCK from which various timing functions/time intervals can be set/obtained throughout the environment.

1. CREATE GENERAL CONDITION AND EDIT AS FOLLOWS:

```
TIMER      50              (= 1 Second)
IFTIMER
THEN
ADDV       001   10        (Add 1 to Variable 10)
CMPV        60   10        (60 Seconds)
IFGT
THEN
SETV       000   10
ADDV       001   11
END
```

3. CREATE LOCAL CONDITIONS THROUGHOUT YOUR ENVIRONMENT WHICH WILL ENABLE THE READING OF TIME INTERVALS FROM GAME START ie:

LOCAL CONDITION 1 AREA 1:

```
CMPV       50   10
IFEQ
THEN
TEXTCOL     3
PRINT       2    7   12
ENDIF
CMPV        5   11
IFEQ
THEN
TEXTCOL     3
PRINT       3    7   14
END
```


MESSAGE 2 to read "FIFTY SECONDS"
MESSAGE 3 to read "FIVE MINUTES"

I have discovered that the 3D Kit Border in use when you go to TEST uses VARIABLE 1 for the SCORE WINDOW/INSTRUMENT. You can use this to demonstrate a second counter. Ie:

```
TIMER      50
IFTIMER
THEN
ADDV        1    1
CMPV       60    1
IFGT
THEN
SETV        0    1
END
```

Go to TEST mode and you will see the SCORE counting up to 60 and then resetting to zero.

CUSTOMISED INFORMATION SCREEN

My aim is to develop a game with the ability to call up an information screen - similar to that found in CASTLE MASTER and THE CRYPT and, in addition, to abort from the game with a single key press. Of course these two functions would have to be carried out from within the compiled stand alone game.

References to pages 42 and 43 of the 8-bit manual in the section "More About Variables" shows that system's variable 121 is for current key presses (ASCII). Could this variable possibly provide a means of "reading" the keyboard? The answer is YES! Using a routine such as the one I am developing (listed below) it could be possible to program various user functions not provided for within the normal key controls.

ROUTINE FOR GAME ABORT

CREATE MESSAGE 2 to say "GIVING UP? HARD LUCK"

CREATE GENERAL CONDITION:

```
CMPV       71   121    (71=ASCII G)
IFEQ
THEN
TEXTCOL     3
PRINT       2     5    7
DELAY     150
ENDGAME
END
```

I aim to use an area to try to use as an Information Screen, ie. read the keyboard for the "I" key (ASCII 73) then GOTO an area with colour set to just one colour (black). Upon this "screen" print messages relating to strength, keys, objects etc. I will inform you of my success or failure!

Incidentally, here is a successful routine partially cribbed from the manual which allows for opening/unlocking a door with a key!

NOTE: Key is object 12, Door is object 8 and Variable 1 is used for storing information on keys held.

ROUTINE TO COLLECT KEY

```
IFACTIVE 12
THEN
INVIS    12
SOUND     8
ORV     128   1
ENDIF
```

ROUTINE TO UNLOCK DOOR

```
IFACTIVE  8
THEN
ELSE
END
ENDIF
TESTV   128   1
IFEQ
THEN
TEXTCOL   3
PRINT     2   10   14    (see message below)
END
INVIS     8
VIS       9              (Make entrance visible)
SYNCSND  11
ENDIF
```

CREATE MESSAGE 2: "DOOR LOCKED - NEED KEY"

****

8-BIT KITGAME VARIABLES

As promised in the last newsletter, here are the variables used in the 8-bit version of the Kitgame. My thanks to the programmers at Incentive for supplying this information to help users to understand the program a little better and to cheat in the game - I know I did!

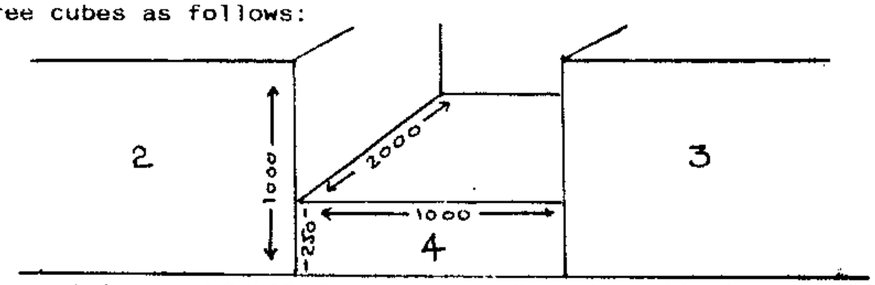
Variable 1 - Time.
Variable 2 - Combination carried? 0 = No 1 = Yes.
Variable 3 - Exit Pass carried? 0 = No 1 = Yes.
Variable 4 - Key carried? 0 = No 1 = Yes.
Variable 5 - Teleport counter 0 = Initial, 1 = Demons Head, 2 = Desert Island, 3 = Not Operated.
Vvaiable 6 - Score.
Variable 8 - Energy.
Variable 9 - Treasure Found.
Variable 10 - Stamper Position (0-3) Area 9.
Variable 11 - 0 = If on floor, 1 = If on Lift Platform.
Variable 12 - Area 3 mode, 0 = Walking 1 = Crawling.
Variable 13 - End of Game, 0 = No 1 = Yes.
Variable 14 - Energy past minimun, 0 = No >1 = Yes.
Variable 16 - Shoot counter.
Variable 17 - Commodore 64 version Text Clear Flag.

****

16-BIT ROUTINES

First routine was kindly sent in by
MARK SLOAN

Mark suggests a variation on the moving obstruction theme discussed in the first newsletter. The idea is to set up an obstruction consisting of three cubes as follows:



Set Cube (4) to MOVEABLE via the Objects Attributes. Create an Animator and edit it as follows:

```
INCLUDE (4)
START
LOOP (75)
MOVE (0,10,0)
AGAIN
LOOP (6)
MOVE (0,-125,0)
AGAIN
SOUND (6)
RESTART
```

Select one of the cubes to be the trigger to start the animation and enter a condition for this as follows:

```
IF SHOT?
THEN STARTANIM (1)
ENDIF
```

This will produce a "pile-driver" type of obstruction which is a little more intimidating don't you think?

Our second routine was kindly sent in by
DAVID SAMBROOK

David has a routine that may be of some use to other members. The basic idea was to produce a "radio-controlled" vehicle that can be moved around inside an environment. David says that it took nearly a day to figure out after much head banging and staring at blank screens and whilst it may not be perfect it does have the benefit of working and should provide a starting place for other members to work from.

The example will consist of some vehicle set up as GROUP 2 and a radio control unit with 4 arrows which when pressed will move the vehicle in the four horizontal directions ie. along the X and Z planes.

There are also two variables used: V40 = Distance moved in X direction each move and V41 = Distance moved in Z direction each move.

To show how it works, these are the listings for pressing the right

arrow:

```
IF ACTIVATED?
OR SHOT?
THEN SETVAR (0,V40)
SETVAR (100,V41)
STARTANIM (1)
ENDIF
```

The conditions for the other three arrows are the same with just the values changed for movement in that direction. Ie:

V40 set to 0
V41 set to -100

The animation triggered is ANIMATION (1) which is created and edited as follows:

```
INCLUDE (2)
START
LOOP (2)
MOVE (V40,0,V41)
AGAIN
STOPANIM (1)
RESTART
```

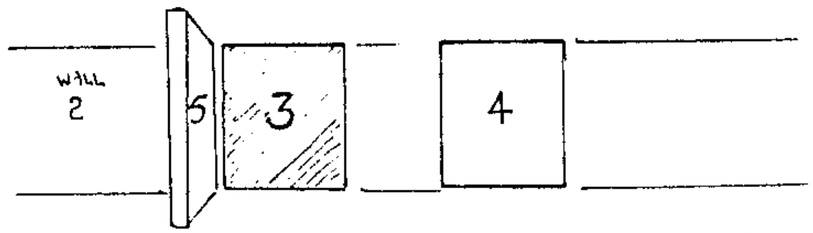
The loop command is used to produce a more fluid motion and not have the vehicle leap from point to point.

This routine could easily be modified for motion vertically along the Y axis by using one more variable in the move command and adding two more arrows to the controller. I would be very interested to find out if it is possible to rotate the vehicle to produce more natural motion so if anyone can come up with anything please do let me know through Mandy.

MAKING DOORWAYS MORE REALISTIC

Some of the routines that I used in the manual for creating doors were, of necessity, rather simple. To create the effect of a door opening to reveal the open door and dark doorway and then closing once more to show the closed, solid door is very simple, looks good in your environments and can be very realistic especially if accompanied by the thudding sound of a door closing.

First we must design our objects by using an expanded cube (2) to form our back wall, a rectangle (3) coloured black and placed flush up against the wall. On top of this we create our "closed" door which will be cube (4) and to the side and flipped to represent our "open" door another cube (5). It should be something like this:



We set cube (5) to invisible via the ATTRIBUTES in the Object Menu or

via the ATTRIB icon. Now create a condition for the "closed" door (4) as follows:

```
IF ACTIVATED?
THEN INVIS (4)
VIS (5)
SYNCSND (2)
ENDIF
```

Note that this time we are using the SYNCSND instead of SOUND. This is to make sure that the sound of the door opening is syncronised with the action - there is nothing worse than having the door open followed by a short silence and then a thud!

Now create a condition for the "open" door (5) as follows:

```
IF ACTIVATED?
THEN INVIS (5)
VIS (4)
SYNCSND (2)
ENDIF
```

MAKING STAND-ALONE GAMES
AMIGA

I have had quite a few letters asking me exactly how members can successfully implement the MAKE command on the Amiga. The problem is really not with the Kit itself but in the fact that on this machine the disc that is going to be used to contain the finished game should be a made to contain a BOOT. I apologise for not explaining this sufficiently in the manual. The disc can be prepared using the CLI as follows:

With WORKBENCH in the drive (and CLI loaded of course)

Type INSTALL?

The Install program should load and you will be presented with:

DRIVE/A,NOBOOT/S,CHECK/S:

Insert your formatted disc into the drive and immediately type in DF0: it should look like this on screen:

DRIVE/A,NOBOOT/S,CHECK/S:DF0:

Now press RETURN. The drive will whir for a moment and you should see the CLI prompt 1>

The disc now has the BOOT and is ready for use with the MAKE command.

To FORMAT a disc through the CLI the command you need is:

FORMAT DRIVE DF0: NAME (whatever the name will be)

Wait for a moment until you are asked for the disk to be initialised, insert the disk and press RETURN.

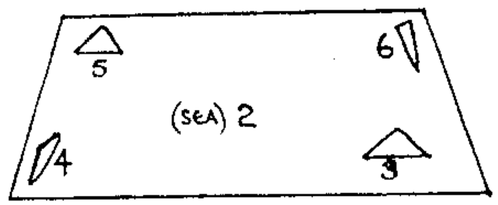
When using the MAKE command follow all the on-screen prompts and when

you are asked to SELECT MAKE PATH, insert the prepared disk and select OK then continue to follow the on-screen prompts.

When you have made your stand-alone environment you should load it through WORKBENCH and when you see the CLI prompt 1> just enter the name of the game you have selected and press RETURN.

SHARK-FILLED SEA

To create the effect of a shark-filled sea with the sharks apparently swimming round in circles you should first create the objects using one flattened cube coloured blue and four dark grey "flipped and turned" triangles:



Now create four animators (one for each "shark") and edit them as follows:

```
ANIMATOR 1                    ANIMATOR 2
INCLUDE (3)                   INCLUDE (4)
START                         START
LOOP (30)                     LOOP (30)
MOVE (-40,0,0)                MOVE (0,0,40)
AGAIN                         AGAIN
MOVETO (4440,40,5040)         MOVETO (3100,40,5000)
AGAIN                         AGAIN
RESTART                       RESTART

ANIMATOR 3                    ANIMATOR 4
INCLUDE (5)                   INCLUDE (6)
START                         START
LOOP (30)                     LOOP (30)
MOVE (40,0,0)                 MOVE (0,0,-40)
AGAIN                         AGAIN
MOVETO (3160,40,5880)         MOVETO (4680,49,5800)
AGAIN                         AGAIN
RESTART                       RESTART
```

The whole animation can be triggered by say, selecting the "sea" as the trigger and inserting a condition for this as follows:

```
IF SHOT?
THEN STARTANIM (1)
STARTANIM (2)
STARTANIM (3)
STARTANIM (4)
ENDIF
```

In the animation you will see that each "shark" will glide to the other side of the sea and jump back to the start position and move along once more - thus giving the illusion of each shark taking the place of the preceding one and swimming in a circle. To obtain the coordinates for the MOVETO command (because for obvious reasons yours will undoubtedly be different to mine) you should take a note of the coordinates given immediately after you change the objects status to MOVEABLE in the ATTRIBUTES. As soon as you change to moveable the starting coordinates will be shown and these are the ones you should make a note of for use within the animation.